

CLAIMS:

1. Method for recording and/or reproducing information on an information track of an information disc, comprising the steps of:
 - a. directing a read-write-head to a current radial position along of the information disc,
 - 5 b. rotating the information disc about a point of rotation, where the rotation speed is controlled in dependence of the current radial position of the read-write-head such that the information passes the read-write-head at a predetermined constant linear velocity, at least for a part of the information track,
 - c. performing a current read-write-action at the current radial position,
 - 10 d. directing the read-write-head to a next radial position along the information disc, where the rotation speed is controlled such that a current rotation speed is changed to a target rotation speed to attain said predetermined constant linear velocity at the next radial position,
 - e. performing a next read-write-action at the next radial position,
 - 15 characterized in that the method further comprises the steps of
 - f. determining the next radial position of the read-write-head while still performing the current read-write-action,
 - g. determining the target rotation speed on the basis of the next radial position, the current rotation speed being changed towards the target rotation speed while the current
 - 20 read-write-action is still being performed.
2. Method as claimed in claim 1, characterized in that the current rotation speed is changed towards the target rotation speed such that at the end of the current read-write-action the rotation speed is just within limits at which the current read-write action can be
25 performed correctly.
3. Method as claimed in claim 1 or 2, characterized in that the next read-write action is started before the target rotation speed has been reached.

4. Method as claimed in claim 3, characterized in that the next read-write action is started immediately when the current rotation speed is within limits at which the next read-write-action can be performed correctly.

5 5. Method as claimed in one of the claims 1 to 4, characterized in that the method performs the steps a to g when receiving a command to read a file and in that the next radial position is retrieved from a file system indicating locations of different parts of the file on the information disc.

10 6. Method as claimed in one of the claims 1 to 5, characterized in that method further comprises a step of receiving commands from information processing means where the commands contain at least one read-write-action instruction, where a next command is already received while still executing a current command, and in that the next radial position is derived from the next command.

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7. Method as claimed in one of the claims 1 to 6, characterized in that the information disc contains remapped information which is relocated from a first location to a second location, and in that the second location is known while reading information located immediately before the first location, and where the target rotation speed is determined on the basis of the second location.

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8. Method as claimed in claim 7, characterized in that the remapping of information is performed by the so called Mount Rainier strategy.

25 9. Method as claimed in one of the preceding claims, characterized in that in step d the decreasing is performed by allowing the information disc to decrease its current rotational speed by its own motion.

10. Apparatus for recording and/or reproducing information on an information track of an information disc, comprising:

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- a read-write-head for performing read-write-actions on the information disc;
- handling means for controlling the read-write-actions;
- radial servo means for moving said read-write-head along a radial direction of the information disc;

- rotation means for rotating said information disc about a point of rotation;
- controlling means for controlling the rotation means where the controlling means control the current rotation speed in dependence of a current radial position of the read-write-head such that the information passes the read-write-head at a constant linear velocity, at least for a part of the information track, and where the controlling means are arranged to change the current rotation speed suitable for a current read-write-action on a current radial position to a target rotation speed suitable for a next read-write-action on a next radial position,
characterized in that the controlling means comprise retrieving means for retrieving the next radial position while still performing the current read-write-action and in that the controlling means are arranged to change the current rotational speed towards the target rotation speed before the current read-write-action has ended.

11. Apparatus as claimed in claim 10, characterized in that the controlling means are arranged to adapt the current rotation speed towards the target rotation speed such that at the end of the current read-write-action the rotation speed is just within limits at which the current read-write action can be performed correctly.

12. Apparatus as claimed in claim 10 or 11, characterized in that the handling means are arranged to start the next read-write action before the target rotation speed has been reached.

13. Apparatus as claimed in claim 12, characterized in that the handling means are arranged to start the next read-write action immediately when the current rotation speed is within limits at which the next read-write-action can be performed correctly.

14. Apparatus as claimed in one of the claims 10 to 13, characterized in that the information disc comprises file information which indicates locations of different parts of a file and in that the apparatus further comprises file information retrieving means for retrieving the file information and in that the retrieving means are arranged to determine the next radial position based on the retrieved file information.

15. Apparatus as claimed in one of the claims 10 to 14, characterized in that the handling means are arranged to receive commands containing at least one read-write-action

instruction, and where the handling means comprise storing means for storing a next command, and in that the retrieving means are arranged to determine the next radial position based on the next command.

- 5 16. Apparatus as claimed in one of the claims 10 to 15, characterized in that the information disc contains remapped information which is relocated from a first location to a second location, and in that the handling means are arranged to retrieve the second location from the information disc, and in that the retrieving means are arranged to determine the next radial location based on the retrieved second location.

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17. Apparatus as claimed in claim 16, characterized in that the remapping of information is performed by the so called Mount Rainier strategy.

18. Apparatus as claimed in one of the claims 10 to 17, characterized in that the
15 controlling means are able to decrease the current rotation speed by allowing the information disc to decrease its current rotational speed by its own motion.